

IN THE CLAIMS:

The text of all pending claims are set forth below. Cancelled and withdrawn claims are indicated with claim number and status only. The claims as listed below show added text with underlining and deleted text with ~~striketrough~~. The status of each claim is indicated with one of (original), (currently amended), (previously amended), (cancelled), (withdrawn), (new), (previously added), (reinstated - formerly claim #), (previously reinstated), (re-presented - formerly dependent claim #) or, (previously re-presented).

Please AMEND claims 19-21, 23-25 and 28-37, in accordance with the following:

1-18. (CANCELED)

19. (PRESENTLY AMENDED) A recording and/or reproducing apparatus recording and/or reproducing data on a recording medium, comprising:

a discriminator to discriminate a magnitude of a present mark of input data and magnitudes of leading and/or trailing spaces of the present mark;

^{c2} a generator to control generation of a write pulse waveform in accordance with a grouping table having width data of first and/or last pulses for the write pulse waveform according to a waveform of a write pulse in accordance with the magnitude of the present mark of the input data and the magnitudes of the leading and/or trailing spaces to generate an adaptive write pulse; and

a driver to drive a light source by converting the ~~adaptive write pulse~~ waveform into a current signal in accordance with driving power levels ~~for respective channels for the adaptive write pulse~~ waveform.

20. (PRESENTLY AMENDED) The recording and/or reproducing apparatus according to claim 19, wherein the generator includes:

a write waveform controller to generate pulse width data to vary a width of ~~a the~~ the first pulse of the write pulse in accordance with the magnitude of the leading space and the magnitude of the present mark and to vary a width of ~~a the~~ the last pulse of the write pulse in accordance with the magnitude of the present mark and the magnitude of the trailing space; and

a write pulse generator to generate the ~~adaptive write pulse~~ waveform in accordance with the pulse width data.

21. (PRESENTLY AMENDED) The recording and/or reproducing apparatus according to claim 20, wherein the write waveform controller comprises a memory in which the pulse width data of the first and/or last pulses ~~of~~for the write pulse waveform are stored, by grouping the magnitude of the present mark and the magnitudes of the leading and/or trailing spaces, into a short pulse group, a middle pulse group or a long pulse group.

22. (PREVIOUSLY AMENDED) The recording and/or reproducing apparatus according to claim 21, further comprising a microcomputer to initialize the write waveform controller and control the pulse width data stored in the memory to be updated in accordance with write conditions.

23. (PRESENTLY AMENDED) The recording and/or reproducing apparatus according to claim 21, wherein the memory stores the pulse width data of the first and/or last pulses for the write pulse waveform depending on whether the input data is in a land track or a groove track.

24. (PRESENTLY AMENDED) The recording and/or reproducing apparatus according to claim 21, wherein the memory stores the pulse width data of the first and/or last pulses for the write pulse waveform for respective zones on the optical recording medium.

25. (PRESENTLY AMENDED) The recording and/or reproducing apparatus according to claim 20, wherein light power for a predetermined one of channels of the adaptive-write pulse waveform is applied during a period corresponding to a varied width of the first pulse and during a period corresponding to a varied width of the last pulse.

26. (PREVIOUSLY AMENDED) The recording and/or reproducing apparatus according to claim 25, wherein a light power for the predetermined channel is a read power or a write power.

27. (CANCELED)

28. (PRESENTLY AMENDED) The recording and/or reproducing apparatus according to claim 19, wherein the generator generates pulse width data by varying a rising edge of athe first pulse of the write pulse in accordance with the magnitude of the leading space and the magnitude of the present mark.

29. (PRESENTLY AMENDED) The recording and/or reproducing apparatus according to claim 19, wherein the generator generates pulse width data by varying a falling edge of athe first pulse of the write pulse in accordance with the magnitude of the leading space and the magnitude of the present mark.

30. (PRESENTLY AMENDED) The recording and/or reproducing apparatus according to claim 19, wherein the generator generates pulse width data by varying a rising edge of athe last pulse of the write pulse in accordance with the magnitude of the trailing space and the magnitude of the present mark.

31. (PRESENTLY AMENDED) The recording and/or reproducing apparatus according to claim 19, wherein the generator generates pulse width data by varying a falling edge of athe last pulse of the write pulse in accordance with the magnitude of the trailing space and the magnitude of the present mark.

32. (PRESENTLY AMENDED) A recording and/or reproducing apparatus recording and/or reproducing data on a recording medium, comprising:

a generator to generate an adaptive write pulse₁ by varying a falling edge of a first pulse of the write pulse in accordance with a magnitude of a leading space and a magnitude of a present mark; and varying a falling edge of a second pulse of the write pulse in accordance with the magnitude of a trailing space and the magnitude of the present mark, based on at least one table storing width data of the first and/or second pulses in a leading and/or trailing space grouping format; and

a driver to drive the light source according to the adaptive write pulse.

33. (PRESENTLY AMENDED) An adaptive write pulse generating circuit, the adaptive write pulse being used for writing input data to an optical recording medium, comprising:

a write pulse inputting unit inputting a write pulse, the write pulse including a first pulse, a

last pulse and a multi-pulse train;

a generator generating the adaptive write pulse₁ by varying a falling edge of the first pulse in accordance with a magnitude of a leading space and a magnitude of a present mark; and varying a falling edge of the second pulse in accordance with a magnitude of a trailing space and the magnitude of the present mark, based on at least one table storing width data of the first and/or second pulses in a leading and/or trailing space grouping format; and an outputting unit to output the generated adaptive write pulse.

34. (PRESENTLY AMENDED) A recording and/or reproducing apparatus recording and/or reproducing data on a recording medium, comprising:

a generator to generate an adaptive write pulse using a grouping table having width data of a-first and/or last pulses of a write pulse waveform; and

C² a processor to process data on a recording medium, wherein the adaptive write pulse includes a first pulse, a last pulse and a multi-pulse train.

35. (PRESENTLY AMENDED) A recording and/or reproducing apparatus recording and/or reproducing data on a recording medium, comprising:

a generator to generate an adaptive write pulse using a grouping table having width data of a-first and/or last pulses of a write pulse waveform according to a magnitude of a present mark of the input data and magnitudes of a-leading and/or trailing spaces of the present mark; and

a processor to process data on a recording medium, wherein the adaptive write pulse includes a first pulse, a last pulse and a multi-pulse train.

36. (PRESENTLY AMENDED) A recording and/or reproducing apparatus recording and/or reproducing data on a recording medium, comprising:

a generator to generate an adaptive write pulse using a grouping table having width data of a-first and/or last pulses of a write pulse waveform; and

a processor to process data on a recording medium, wherein the adaptive write pulse includes a first pulse, a last pulse and a multi-pulse train, and is different in respective zones on the recording medium.

37. (PRESENTLY AMENDED) A recording and/or reproducing apparatus recording and/or reproducing data on a recording medium, comprising:

c² a generator to generate an adaptive write pulse using a grouping table having width data of a first and/or last pulses of a write pulse waveform; and
a processor to process data on a recording medium.

wherein the write pulse waveform is based on whether input data is in a land track or a groove track.
